Integración Por Partes

Resolver las siguientes integrales aplicando la técnica de integración por partes:

1. $\int xe^x dx$
2. $\int \frac{x}{e^x} dx$
3. $\int x2^{-x} dx$
4. $\int x \operatorname{sen}(x) dx$
5. $\int t \cos(t) dt$
6. $\int xe^{2x} dx$
7. $\int \frac{x^2}{e^{3x}} dx$
8. $\int x^2 3^x dx$
9. $\int x^2 \operatorname{sen}(x) dx$
10. $\int t^3 \operatorname{sen}(t) dt$
11. $\int \ln(x) dx$
12. $\int \arctan(x) dx$
13. $\int \operatorname{arcsen}(x) dx$
14. $\int 4x \ln(2x) dx$
15. $\int \sqrt{x} \ln(x) dx$
16. $\int x \arctan(x) dx$
17. $\int x \operatorname{arcsen}(x) dx$
18. $\int x^3 e^{x^2} dx$
19. $\int \cos^2(x) dx$
20. $\int \theta \cos(3\theta) d\theta$
21. $\int x^5 \cos(x^3) dx$
22. $\int (t^2 + 5t + 6) \cos(2t) dt$
23. $\int \sec^3(\theta) d\theta$
24. $\int e^x \operatorname{sen}(x) dx$
25. $\int \operatorname{sen}(3x) \cos(5x) dx$
26. $\int x \operatorname{sen}(x) \cos(x) dx$
27. $\int x^2 \ln(x) dx$
28. $\int \frac{\ln(x)}{\sqrt{x}} dx$
29. $\int e^{5x} \cos(2x) dx$
30. $\int \cos\left(\frac{x}{2}\right) \cos\left(\frac{x}{3}\right) dx$
31. $\int z^2 e^{3z} dz$
32. $\int t^2 e^{-t/2} dt$
33. $\int e^{at} \cos(bt) dt$
34. $\int (x^2 - 2x + 5) e^{-x} dx$

35. $\int \frac{x\,dx}{\operatorname{sen}^2(x)}$

36. $\int x \ln\left(\frac{1-x}{1+x}\right) dx$

37. $\int x^2 \arctan(x) dx$

38. $\int 5^x \operatorname{sen}(5x) dx$

39. $\int \ln^2(x) dx$

40. $\int e^{\sqrt{x}} dx$

41. $\int e^{ax} \operatorname{sen}(bx) dx$

42. $\int \ln(x\sqrt{1+x^2}) dx$

43. $\int \operatorname{sen}(\ln(x)) dx$

44. $\int y^3 e^{-y^2} dy$

45. $\int \frac{x\cos(x)}{\operatorname{sen}^2(x)} dx$

46. $\int 3^x \cos(x) dx$

47. $\int x^5 e^{x^2} dx$

48. $\int \frac{\ln^2(t)}{t^2} dt$

49. $\int \frac{\ln(\ln(x))}{x} dx$

50. $\int (x^2 - 2x + 3)\ln(x) dx$

51. $\int t^3 e^t dt$

52. $\int \sqrt{x^2+1} dx$

53. $\int x \tan^2(2x) dx$

54. $\int x(\arctan(x))^2 dx$

55. $\int \frac{\ln(x)}{x^3} dx$

56. $\int \frac{\operatorname{arcsen}(\sqrt{\theta})}{\sqrt{1-\theta}} d\theta$

57. $\int \frac{\operatorname{sen}^2(x)}{e^x} dx$

58. $\int \cos(x)\cos^2(3x) dx$

59. $\int x \csc^2(x) dx$

60. $\int x \tan^{-1}(x) dx$

61. $\int \cos^2(\ln(x)) dx$

62. $\int \cos(t)\ln(\operatorname{sen}(t)) dt$

63. $\int (\ln(x))^2 dx$

64. $\int \operatorname{sen}(\sqrt{x}) dx$

65. $\int x^2 \cos(3x) dx$

66. $\int x\cos^2(x)\operatorname{sen}(x) dx$

67. $\int \sec^5(\theta) d\theta$

68. $\int \frac{x\,dx}{\cos^3(x^2)}$

69. $\int \frac{xe^x}{(x+1)^2} dx$

70. $\int (\operatorname{arcsen}(x))^2 dx$

71. $\int x^3 \ln(x) dx$

72. $\int t \operatorname{sen}(4t) dt$

73. $\int x^2 \operatorname{sen}(2x) dx$

74. $\int \sec^5(ax+b) dx$

75. $\int x 5^x dx$

76. $\int \theta \sec^2(\theta) d\theta$

77. $\int \sec^3(ax+b) dx$

78. $\int z \cos(2z) dz$

79. $\int x \operatorname{sen}^2(x) dx$

80. $\int e^{-\theta} \cos(3\theta) d\theta$

81. $\int x a^x dx$

82. $\int \frac{\ln(x)}{\sqrt{1-x}} dx$

83. $\int \arccos(z)\, dz$

84. $\int \operatorname{sen}(2t) \operatorname{sen}(4t) dt$

85. $\int \operatorname{sen}(2t) \ln(\cos^7(t)) dt$